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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,518	07/16/2004	Larry V. Presley	219807152004	4517

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EXAMINER

MAYEKAR, KISHOR

ART UNIT	PAPER NUMBER
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1753

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/710,518

Applicant(s)

PRESLEY ET AL.

Examiner

Kishor Mayekar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 2 and 3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 2 and 3 now recite that the photoreactor reactor plate is made of an impact-modified acrylic (polymethylmethacrylate) polymer. However the limitation "an impact-modified acrylic polymer" has no support in the specification as originally filed. As such, the limitation constitutes a new matter.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Orr, Jr. et al. (4,095,115) in view of Schaefer (US 3,801,791) and either Zimek et al. (5,397,444) or Crosbie (6,165,423), all the references except Schaefer cited in the last Office action. Orr's invention is directed an ozone generating device. Orr discloses in Figs. 1 and 2 that the device contains a hollow body **14** with first and second ends, a plate **20** sits atop the hollow body **14**, and a generally rectangular slotted opening adapted to receive the plate. Orr also discloses in col. 2, lines 38-44 the use of the device for sewage treatment or other applications for oxidation, and in paragraph crossing cols. 3 and 4 the choice of material of the plate **20** and hollow body **14** is conventional and well within the ordinary skill of the art. The differences between Orr and the above claims are that the plate traps the UV light, the securing of the plate to the hollow body with a series of bracing members, and a series of tubing communicating with the second end of the hollow body.

As to the first difference, Schaefer shows in an ozone generator the use of an acrylic material for the housing as the acrylic material is known to be ozone resistant (col. 2, lines 51-58). And when the acrylic material is the choice of material for the plate in Orr and since the acrylic material is transparent, the acrylic material will allow some UV light to pass through and a portion of the light will trap within in the form of heat. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Orr's teachings as shown by Schaefer because the selection of any of known equivalent materials for the plate *20* and hollow body *14* would have been within the level of ordinary skill in the art. Further, it has been held that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* 15 USPQ 1525.

As to the second and third differences, Zimek shows both the limitations in an apparatus with means for applying a corpuscular radiation to reactants for initiating or perfecting chemical reaction (see Fig. 1 or 2). Crosbie shows the same in an ozonizer (see abstract and Fig. 1). The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified Orr's teachings as suggested by either Zimek or Crosbie

because 1) as to the second difference, the selection of any of known equivalent means for securing the plate to the hollow body would have been within the level of ordinary skill in the art; and 2) as to the third difference "making elements separable was held to have been obvious", *In re Dulberg* 129 USPQ 148.

As to the subject matter of each of claims 2, 3 and 6, since Orr discloses in paragraph crossing cols. 3 and 4 to the choice of material of the plate and hollow body, the selection of any of known equivalent materials for the plate and its size and the hollow body would have been within the level of ordinary skill in the art.

Response to Arguments

5. Applicant's arguments filed October 21, 2005 have been fully considered but they are not persuasive.

To the applicant's argument that the references do not teach or suggest or motivate the use of a plate that allows UV light to pass within it but traps UV light and more particularly the encourage of a reaction that will destroy organic compounds in volatile organic compound laden waste management, the examiner finds this is to be unpersuasive. It is because when the acrylic material is the choice of material for the plate in Orr and since the acrylic material is

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transparent, the acrylic material will allow some UV light to pass through and a portion of the light will trap within in the form of heat.

To the argument that the present invention offers a structure to destroy organic compounds in volatile organic compound laden waste water, it has been held that that "apparatus claims cover what a device is, not what a device does", *Hewlett-Packard Co. vs. Bausch & Lomb Inc.* 15 USPQ 1525. Further, Orr discloses the use of the device in sewage treatment and in other applications for oxidation (col. 2, lines 38-44).

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

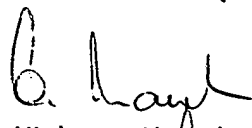
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kishor Mayekar whose telephone number is (571) 272-1339. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kishor Mayekar
Primary Examiner
Art Unit 1753